NURSE PRACTITIONER WORKFORCE AND PRIMARY CARE IN MASSACHUSETTS

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INTRODUCTION

Nurse practitioners (NPs) are registered nurses who have completed additional education (masters or doctoral level) and advanced clinical training to be able to serve various key roles in the health care delivery system, including that of primary care provider (PCP). Most NPs receive broad training consistent with primary care practice, and approximately 50% ultimately practice as PCPs.

In Massachusetts, an NP can be recognized and deliver care as a PCP, and carriers must allow patients to choose an NP as their PCP. However, Massachusetts scope of practice (SOP) laws for NPs are considered restrictive and require NPs to maintain a collaborative practice agreement with a supervising physician in order to practice and prescribe medications consistent with their training. There is limited oversight of these collaborative practice agreements. Disruptions in care can occur if supervising physicians leave practice or end the practice agreement. (Note: in March 2020, the Baker-Polito Administration temporarily relaxed certain SOP requirements during the novel Coronavirus COVID-19 pandemic.[1])

Additional research is needed to understand the role of NPs in a limited SOP environment, the patient populations NPs serve, and how NPs deliver care across provider organizations. Further research is also warranted on payment and billing practices, particularly regarding "incident to" billing; an artifact of SOP restrictions where visits with an NP may be billed by ("incident to") a supervising physician at the physician's payment rate – rather than billed by the NP directly.

OBJECTIVES

This study analyzed the NP primary care workforce in Massachusetts between 2015-2017, assessed the extent to which NPs serve as PCPs in a state with SOP restrictions, and the patients who are served by NPs. This study also evaluated the prevalence and implications of "incident to" billing.

STUDY DESIGN

This study analyzed primary care utilization patterns and payer-reported PCP assignments to identify cohorts of patients who were attributed to a PCP who was either an NP or a physician.

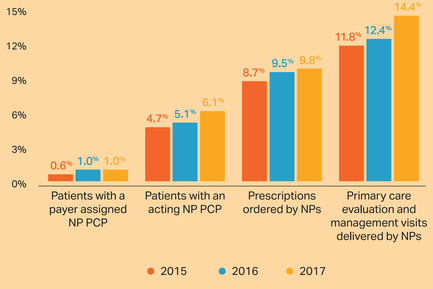
Patient assignment to NPs as PCPs can be determined in claims data in two main ways: (1) for enrollees in plans where selection of a PCP is required, by payer record of the national provider identifier of the NP assigned as PCP ("payer assigned NP PCP"), and (2) by an attribution method which identifies an NP as PCP to a patient based on observations of who the patient predominantly sees for their primary care services ("acting NP PCP"). Most of the analysis that follows uses the second, utilization-based method to understand an NP's role in primary care delivery among commercial patients.

The HPC compared the relative proportion of patients attributed to an NP PCP through a payer-reported assignment or observed utilization of primary care services from 2015 to 2017. The HPC studied the characteristics of patients who were attributed to either an NP or physician PCP through their observed primary care utilization. Using claims indicators, the HPC estimated the prevalence of "incident to" billing among evaluation and management visits (E&M, CPT 99201-5, 99211-5). The HPC then evaluated the cost of a mid-level established E&M visit (CPT 99213). The primary data sources for this work are the Massachusetts All-Payer Claims Database (APCD), CMS National Plan and Provider Enumeration System (NPPES), and Massachusetts-specific provider rosters.[2]

1. https://www.mass.gov/info-details/covid-19-guidance-and-directives#health-care-professionals-&-organizations-
2. Provider rosters in addition to NPPES include the Massachusetts Registry of Provider Organizations (RPO) and a Massachusetts list of providers from IQVIA.
3. http://medpac.gov/docs/default-source/reports/jun19_medpac_reporttocongress_sec.pdf

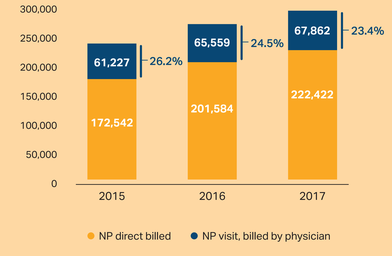
FINDINGS

FIGURE 1: Role of nurse practitioners in primary care delivery, 2015-2017



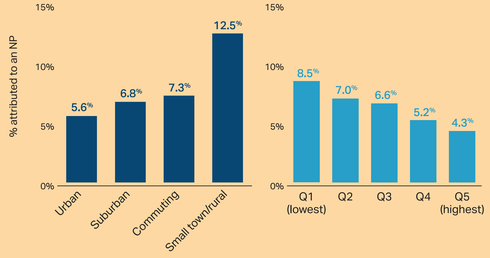
All measures of NP involvement in primary care in **Figure 1** increased between 2015 and 2017. Despite regulations that enable NPs to be selected as a patient's PCP, however, only a small proportion of patients are reported to have an NP as their PCP according to insurer records (from 0.6% of patients in 2015 to 1.0% in 2017). The percentage of commercial patients (for whom a PCP could be attributed) with an NP acting as their PCP increased as did other measures of NP primary care delivery such as ordering prescriptions and primary care E&M visits.

FIGURE 3: Extent of "Incident to" billing among commercial evaluation and management visit claims, 2015-2017



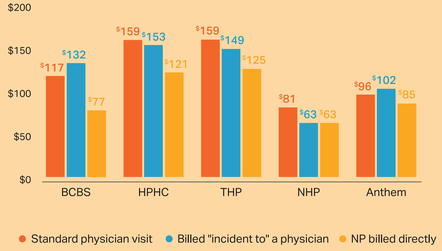
While 14.4% of all primary care E&M visits were delivered by NPs in 2017, physicians billed for at least 23% of these visits. The proportion of NP E&M visits billed by a physician fell slightly between 2015 and 2017 (26% to 23%).

FIGURE 2: Percentage of commercial patients with an NP as their primary care provider, by geographic area and income quintile of the patient's zip code, 2017



Consistent with prior literature, the HPC found evidence that in Massachusetts, NPs are serving more underserved populations (see **Figure 2**). Commercial patients in lower-income communities are more likely to have an NP as their PCP, as are commercial patients living in more rural areas.

FIGURE 4: Visit cost varies by payer and billing provider across five commercial payers, 2017



In 2017, the median payment rate was $133 for a physician-billed mid-level E&M visit. The payment rate was approximately the same, on average, for most payers when the visit was provided by an NP but billed "incident to" a physician. However, if an NP billed for the service directly, the payment rate varied from 66% (Blue Cross Blue Shield) to 89% (Anthem) of the rate paid to physicians for the same service.

CONCLUSION

Over half of U.S. states (including all of the other New England states) and the District of Columbia do not impose SOP restrictions for NPs, granting them "full practice authority" either immediately upon licensure (14 states) or after a predefined and limited period of supervision (14 states). A growing body of research has found adverse effects (and no positive effects) of these restrictions, generally concluding that they are not evidence-based and limit the capacity of the health system to fully respond to the needs of the population it serves.

These findings indicate that NPs play a larger role in primary care delivery than might be expected solely based on the number of patients who are assigned to an NP PCP by a payer. NPs appear to be efficient providers of high-quality care and state SOP restrictions are potentially limiting the ability to expand delivery of high value primary care by NPs.

POLICY IMPLICATIONS

Prior research has shown that strengthening primary care improves health outcomes, but a limited supply of PCPs may limit the feasibility of this strategy for health system improvement. Although fewer physicians are entering primary care, there is a growing supply of NPs in Massachusetts that could play a larger role in primary care delivery, especially with the elimination of SOP restrictions. "Incident to" billing is one artifact of SOP restrictions, which obscures accountability for the clinician who provided the visit (who may not appear on the claim) and increases costs as these visits tend to be paid at higher rates. Full SOP for NPs, with the elimination of "incident to" billing (as recommended by the Medicare Payment Advisory Commission[3]), will improve efficiency and accuracy of quality measurement for providers. Additionally, the impact of the suspended SOP requirements during the COVID-19 pandemic on the prevalence of "incident to" billing will need to be evaluated.

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